

ABSTRACT

Managing a primary bit stream involves converting a qB/rB encoded bit stream to an xB/yB encoded bit stream and multiplexing an additional bit stream with the xB/yB  
5 encoded bit stream at a transmission side of a link. The additional bit stream is then demultiplexed from the xB/yB encoded bit stream and the xB/yB encoded bit stream is converted back to the qB/rB encoded bit stream at the receiver side of the link. The qB/rB encoded bit stream is converted to and from the xB/yB encoded bit stream so that the additional bit stream can be multiplexed with the qB/rB encoded bit stream using  
10 multiplexing/demultiplexing systems that are compatible with the xB/yB multiplexing system. In an application, a 4B/5B encoded bit stream is converted to an 8B/10B encoded bit stream and an additional bit stream is multiplexed with the 10B code-words of the 8B/10B encoded bit stream using code-word manipulation.